

REMARKS

Claims 1-7 remain in this application. Claims 1-7 were amended to better define the the claim terminology. No new matter has been introduced as a result of the amendments. Favorable reconsideration is respectfully requested.

Claims 1-2, and 5-7 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Nagel et al.* (US Patent No. 5,481,399) in view of *Chawki et al.* (US Patent No. 5,576,875). Claim 3 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Nagel et al.* (US Patent No. 5,481,399) in view of *Chawki et al.* (US Patent No. 5,576,875) and further in view of *Strasser et al.* (US Patent No. 5,576,875) or *Hemmi* (US Patent No. 5,576,875). The Applicants respectfully traverse these rejections.

Specifically, the cited art, alone or in combination does not disclose a “wavelength demultiplexer filter device has low stop-band attenuation only for individual optical signals which are in transmission channels, and further having a high stop-band attenuation outside the transmission channels for a wavelength range containing said [oscillating] instabilities” and a “a multiplexer device for combining the individual signals into a wavelength division multiplex signal” as recited in claim 1. *Nagel* discloses an optical amplifier having a filter (24) used as a drop element to help eliminate the ASE peaks and drops in a service signal having the same wavelength (col. 4, lines 4-15). The configuration disclosed in *Nagel* however, does not teach the use of demultiplexer filter devices for ring networks where the filter device has different attenuations at different wavelengths in the transmission channels.

Regarding the Examiner’s response, the Office Action stated that *Nagel* discloses a “system for suppressing instabilities” (see col. 2, lines 10-15 and col. 4, lines 7-8). This position misinterprets the teaching of *Nagel*. *Nagel* is clear in the disclosure that “the object of the invention is adding and dropping a telemetry signal” (col. 2, lines 10-15). According to col. 4, lines 5-8, “[t]he add/drop device 20 is comprised of a drop element, such as a filter 24, and an add element, such as a wave division multiplexer 30 (see FIG. B) or a standard 3 dB coupler.” The filter 24 is used for dropping a telemetry signal and for simple noise reduction (col. 4, lines 7-19). The filter according to FIG. 3A is configured as a bandpass to provide noise filtering and to drop the telemetry signal (col. 4, lines 21-22). But within the bandwidth, all signals and noises are passed through. Similarly, the filter disclosed in FIG. 3B is also configured to drop

the telemetry signal and to pass all remaining frequencies. Neither of these filters has any influence on suppressing stability. In fact, the entire disclosure of Nagel, there is no mention of a ring system or system stability

Furthermore, the filter 24 is not equivalent to the wavelength-demultiplexer recited in the present claims. The aforementioned wavelength-demultiplexer is inserted in the ring network to pass only a select number of individual optical signals and blocks all other frequencies, as well as the frequencies between the channels. Accordingly, oscillation on the frequencies between the channels is mitigated, and oscillations on the channel frequencies are removed by add/drop circuits.

With regard to the *Chawki* reference, *Chawki* teaches an optical ring network for SDH with an add-drop device being incorporated in the ring network. The ring network of *Chawki* is designed for a narrow-band SDH system (see col. 2, lines 47-49), which does not typically experience oscillation instability. In fact, *Chawki* makes no reference to such instability in the disclosure.

Moreover, *Chawki* and *Henmi*, do not cure the deficiencies of *Nagel*. While both references teach the use of add/drop filters in a network system, neither reference addresses instability problems in the ring network according to the characteristics of the filters as claimed above. Furthermore, there is no teaching or suggestion to combine these references without the use of impermissible hindsight. Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." *In re Mills* 916 F.2d at 682, 16 USPQ2d at 1432 (PEP 2143.01). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (MPEP 2143).

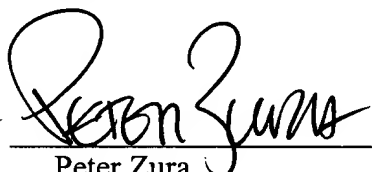
With regard to claim 1, the Examiner claimed that "it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate an optical add-drop filter such as the one of *Nagel* in a multiplex ring network, as it is taught by *Chawki*, in order to add and drop specific channels within the network and to suppress noise signals." This rationale is simply incorrect. *Nagel* expressly uses a filter to remove telemetry signals in EFDA regenerative systems (see col. 1, line 60 to col. 2, line 15; col. 4, lines 45-53). *Chawki*, on the

other hand, deals with the use of filters to extract data from transmissions using multiple wavelengths in order to minimize the number of lasers used in the system (col. 3, lines 63 to col. 4, line 2). Applicant reiterates that there is no teaching, suggestion or motivation to combine the references. *Chawki* does not use the filters to eliminate noise per se, but instead teaches the use of Fabry-Perot type filters to transmits a narrow band of wavelengths and reject wavelengths outside of that band (col. 4, line 14, 54). The filter has ability to "select" a different peak wavelength as the filter is tilted. By substituting the filters of Nagel, the system becomes inadequate for its intended purpose (see MPEP 2143.01).

In light of the above, Applicants respectfully submit that independent claim 1, as well as all claims that depend therefrom, are in condition for allowance, which is respectfully requested.

Respectfully submitted,

BELL, BOYD & LLOYD LLC

BY 

Peter Zura

Reg. No. 48,196

P.O. Box 1135

Chicago, Illinois 60690-1135

Phone: (312) 807-4354

Dated: October 12, 2004